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ABSTRACT

A "moderation system" is a system intended to help ensure uniform interpretation and application of standards within New Zealand's National Qualifications Framework, which consists of all nationally registered academic and vocational qualifications and the nationally registered unit standards from which they are derived. The process of designing such a system has three stages. In the first stage, designers are given information depending upon which option is chosen: a centrally established national system, a national system of local networks, or internal, local moderation systems. During stage 2, a management structure is established; functions of moderation activities are determined; components such as timing, extent, materials, and personnel are added depending on the characteristics of unit standards, participating providers, and workplaces. A moderation method is then selected from among such techniques as the following: exemplars and benchmark materials, expert assessors, external written examinations, statistical moderation, common assessment tasks and reference tests, item banks, distance moderators, external assessors, external moderators with site visits, external moderators with panel meetings, consensus panels, and consensus panel networks. In the third stage, the system is reviewed to ensure that proposed arrangements are efficient, resource effective, and accessible. (The appendices offer seven case scenarios of national moderation systems and a glossary.) (CML)

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DEVELOPING A

QUALIFICATIONS FRAMEWORK

FOR NEW ZEALAND

# DESIGNING A MODERATION SYSTEM

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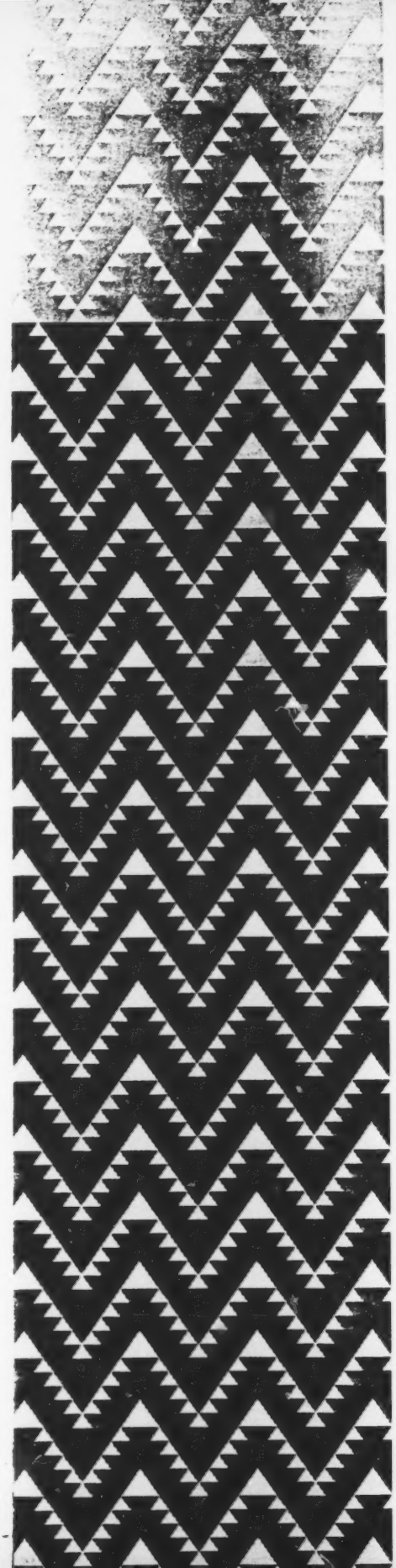

**The New Zealand Qualifications Authority will promote improvement in the quality of education and training in New Zealand through the development and maintenance of a comprehensive, accessible and flexible National Qualifications Framework.**

*The Authority's main functions are to:*

- coordinate all qualifications in post-compulsory education and training (from upper secondary to degree level) so they have a purpose and relationship to one another that the public and students can understand
- set and regularly review standards as they relate to qualifications
- ensure New Zealand qualifications are recognised overseas and overseas qualifications are recognised in New Zealand
- administer national examinations, both secondary and tertiary

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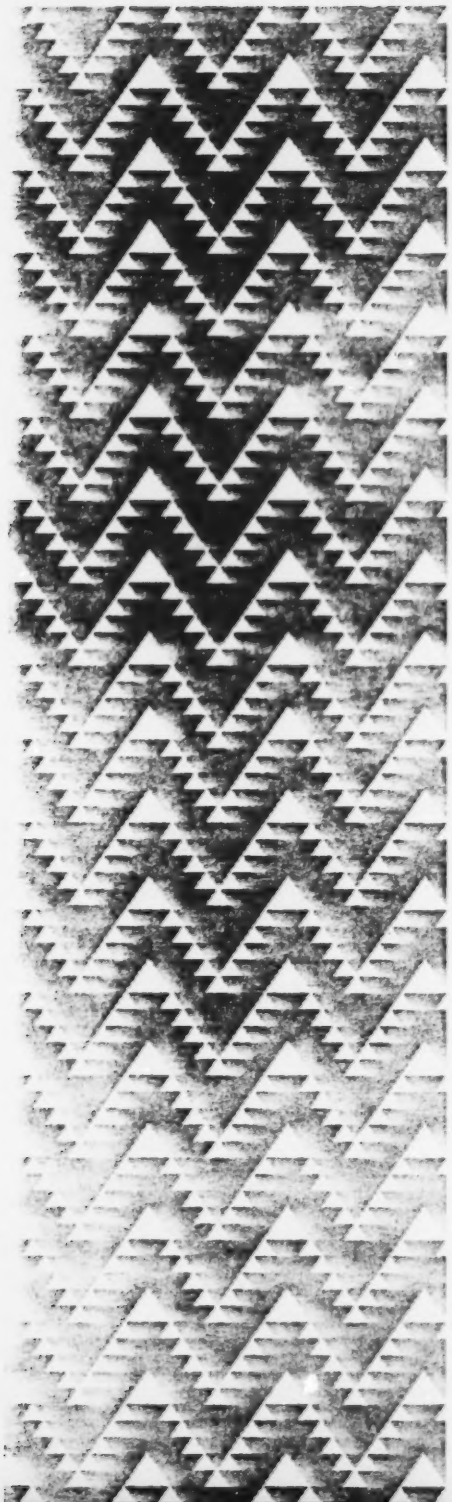
# FOREWORD



Holders and users of national qualifications must have confidence that different assessors throughout New Zealand have assessed to the same standards.

Moderation is a broad term that covers activities that help to ensure there is uniform interpretation and application of standards.

**EXTERNAL MODERATION** is an option available to individual national standards bodies. If a standards body decides it requires external moderation, it has two further options:

| | | |
|---|---|---|
| ***Either*** | option 1 | a centrally established and directed national moderation system |
| ***Or*** | option 2 | a national moderation system of local networks. |

In **option 1** the moderation systems will be **designed centrally** by individual national standards bodies and/or their agents. Agents could, for example, be any one or a combination of the following:

- the Qualifications Authority,
- a national professional association,
- a national industry organisation,
- an individual provider or consortium of providers,
- a private consultant.

In **option 2** moderation systems will be **designed locally** by providers and work-places. Local user group representation may be included.

The main purpose of this booklet is to assist those given responsibility for designing moderation systems. Designing a moderation system is not a simple task and many of the issues covered in this booklet are inescapably complex.

All providers and work-places are required to have internal arrangements for ensuring that local assessments are within acceptable national limits. This means that they will carry out **INTERNAL MODERATION** of assessment. This booklet will also assist in the development of internal moderation systems.

An additional option available to standards bodies is to conclude that expectations can be met through internal moderation without needing to add external moderation requirements.

In addition, the booklet will be of interest to those involved in assessing for the recognition of prior learning.

# BACKGROUND: Assessment and Moderation

## Fair, valid and consistent assessment

The broad goal for all assessors is to produce assessments that are fair, valid and consistent. This requires:

- appropriate assessment activities, and
- accurate assessment decisions.

It is important to note that there are a number of related issues (such as providing candidates with fair re-assessment opportunities) which are not within the scope of this booklet.

## The technical issues

A **valid** assessment activity is one which assesses what it sets out to assess, and not something else.

Another way of thinking about validity is that the assessment is 'fit for purpose' - it is an appropriate way to assess the specific learning outcomes that are under consideration.

An assessment activity will be valid if its results accurately represent achievements in the knowledge, skills, attitudes and values that are to be assessed.

A **reliable** assessment gives results that are a consistent and accurate picture of what is measured. In other words, the results can be relied upon.

## Variation

Any assessment includes a margin of error. Methods of assessment and applications of standards will vary. The challenge is to limit the variation to acceptable proportions.

A shoal of fish has been used as a way of explaining the issue. Note that the fish represent assessors, not learners.

> Individual fish might be to the left or right, high or low, forward or laggard, each following its own path, each with its own motive power. Yet the shoal as a whole can veer in one direction or another. There are apparent mechanisms at work within each individual which keep it close to its neighbour.
>
> Through these mechanisms, deviant fish are returned to the mainstream. The relationship between individuals adjusts constantly but the shoal remains within appropriate bounds and retains a constant, steady progression. Some variations are considered acceptable.[1]

[1] This illustration does not mean that learners should not always be encouraged to excel by achieving beyond expectations.

Legislation gives tertiary institutions the freedom 'to teach and assess students in the manner they consider best promotes learning'. This is a freedom they practice within the need to maintain 'the highest ethical standards and the need to permit public scrutiny to ensure the maintenance of those standards', as well as the need for general accountability.

Legislation gives the Qualifications Authority responsibility for ensuring there are mechanisms in place to guarantee that assessment procedures are fair, equitable, consistent, and in keeping with the required standard.

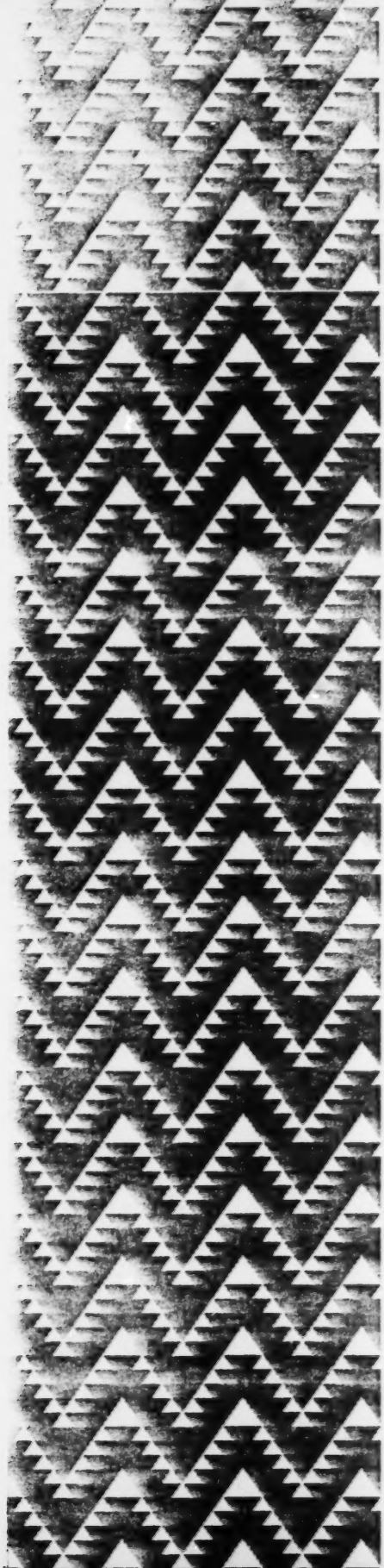
The rights and responsibilities of tertiary institutions and the responsibility of the Authority require fine balance.

Although this booklet does not directly address funding implications, this is nonetheless a critical consideration when designing a moderation system. Costs will most often be borne by providers, and these will usually be passed on to candidates. The Authority has the responsibility to reject proposed external moderation systems that have undesirable resource implications for providers, candidates or Government.

## Moderation

Wherever it occurs, moderation of assessment is usually carried out through sampling. This involves targetting selected, representative points to check out the quality of the whole.

As individual assessors move through the assessment process, the main function of moderation activities is to ensure that different applications of standards remain within acceptable limits. In other words, moderation ensures that assessors remain within the national shoal.



## BACKGROUND: Unit Registration

Details on **external** moderation requirements are included in the information that a national standards body submits to the Authority at the time of unit registration.

The criterion used to determine the acceptability of the proposal is:

> There are *efficient, resource-effective and accessible* arrangements for ensuring the consistency of assessment with the required standards.

If any one of the three components in this criterion is not met, the unit will not be registered. This would mean that the design process would have to be re-activated.

The Authority has the responsibility to reject proposed systems that are technically flawed or have undesirable resource implications for providers, candidates or Government.

# BACKGROUND: Accreditation and Re-accreditation

## Accreditation

An application for accreditation will need to show that for the scope of the accreditation there is a system for ensuring that assessment is fair, valid and consistent.

There are three possible routes:

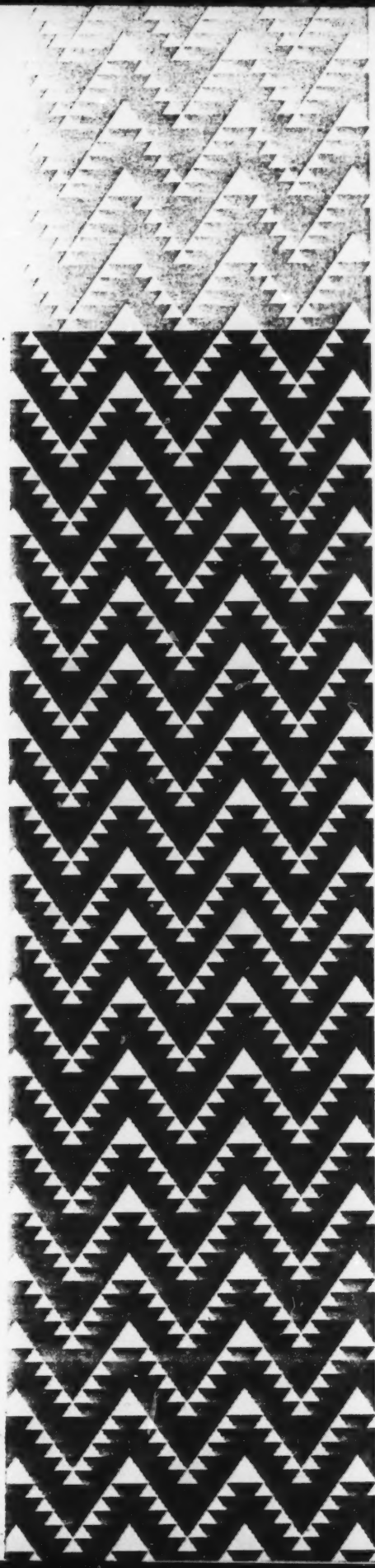
1. If the registered unit standards indicate that the national standards body does not require external moderation, an application will *focus solely on internal moderation arrangements.*
2. Where the standards body has decided it will centrally establish and direct a national moderation system (option 1), the application will *outline internal moderation arrangements* and will also *indicate intentions to participate in the external moderation system.*
3. Where the standards body preferred a national moderation system of local networks (option 2), the applicant will *outline internal moderation arrangements* and will also *explain how external moderation arrangements meet the moderation criteria* stated in the registered unit standards.

## Re-accreditation

At the time of re-accreditation, all providers will be expected to report on matters such as:

- moderation and evaluation activities carried out during the period of accreditation;
- any changes in delivery that have been made as a result of the moderation and evaluation activities;
- any further changes which are being considered.

The re-accreditation process ensures that providers have been meeting their obligations.



# OVERVIEW OF THE DESIGN PROCESS

There are three stages, each of which is later explained more fully.

## Stage 1: Provide the designers with a brief

The brief contains the broad instructions the designers are to follow.

## Stage 2: Design the moderation system

A. Establish a management structure for the system.

B. Give the moderation system a function or functions.

C. Consider the characteristics of the unit standards and the characteristics of the participating providers and work-places, and then add to the system the following components:

- timing;
- extent of moderation;
- materials;
- personnel.

D. In light of the four components in C. now select a moderation method (or methods) that is the best vehicle for enabling the system to operate.

## Stage 3: Review the system

The system needs to be reviewed to ensure that it meets expectations and that the proposed arrangements are efficient, resource-effective and accessible.

# STAGE 1

# PROVIDE THE DESIGNERS WITH A BRIEF

## External moderation: option 1

If the national standards body decides on option 1,

a centrally established and directed national moderation system,

it provides the designers with a brief of instructions and the system is then designed centrally. It is likely that some of the decisions about the detail of the design will be taken during the development of the brief.

## External moderation: option 2

If the national standards body decides on option 2,

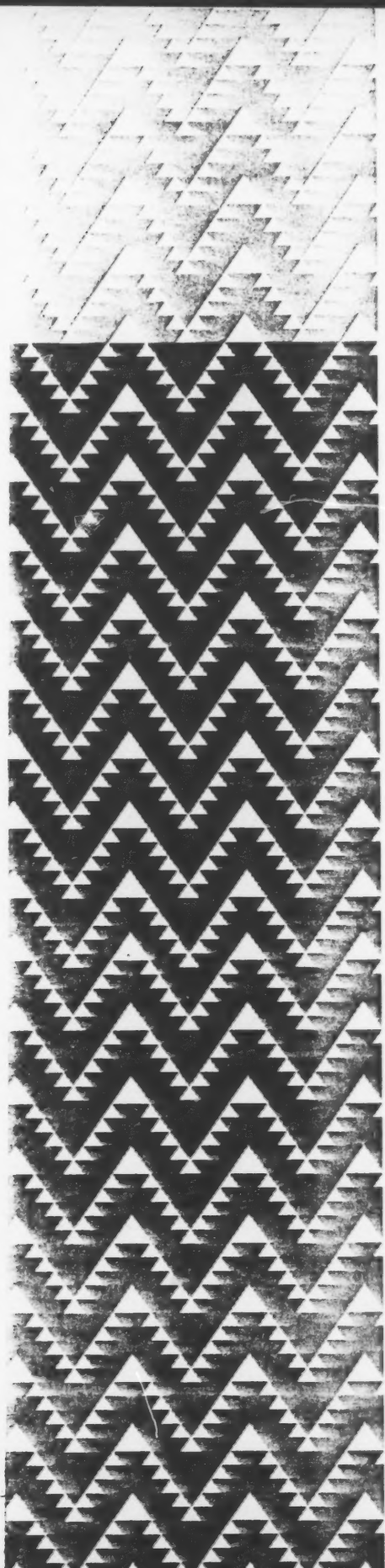
a national system of local networks,

the design brief is found in the moderation criteria set by the national standards body. These criteria are included in the published unit standards.

The detail of the system is then designed locally.

## Internal moderation

For internal moderation systems the development process is exactly the same as for designing external moderation systems. However, the brief will be developed within an individual provider and will be shaped directly by local circumstances.



# STAGE 2

# DESIGN THE MODERATION SYSTEM

## A. Establish a management structure

Any moderation system is established by asking key management questions such as:

- who will make moderation policies?
- how will this be done?
- who will implement these policies?
- how will this be done?
- who will evaluate policies and implementation?
- how will this be done?

Underpinning these are critical additional management questions:

- what are the likely costs of setting up and operating a moderation system?
- who will pay for this?
- how will resource-effectiveness be achieved?

Answers to these questions will enable the moderation system that is established to have a management structure. The structure will have a financial base.

Whether a moderation system is internal, local or national it will be part of a quality management system of:

| | | | |
|---|---|---|---|
| organisational structures, responsibilities, processes, procedures and resources | for managing the | determination and implementation | of quality policies |
| with continual evaluation underpinning the system. | | | |

If any of these components is missing, the system is unlikely to function effectively.

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## B. Give the moderation system a function

Moderation activities are used to help ensure there is uniform interpretation and application of standards and to ensure that results are consistent. Therefore the function of moderation activities will usually be:

### a. To verify that assessments are fair, valid and consistent, and to identify where there is any need for redesigning assessment activities, or for re-assessing students

This will affect current assessments and current results.

It may mean that particular assessment activities have to be considered appropriate before they can be used, or that particular assessment decisions have to be considered accurate before students can be awarded credit.

Where problems are identified, the moderation system may have a capacity to provide assessors with help. Alternatively assessors might be expected to find assistance elsewhere.

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A moderation system can also have alternative or associated functions such as:

### b. To adjust interpretations of standards for the future

Obviously moderation activities that affect current assessments (see a. above) will also adjust assessors' interpretations for the future.

However, moderation activities do not need to involve current assessments or current results. They can be based on past samples of assessments or on activities that have been developed especially for the professional development of assessors.

### c. To assess

External moderation is usually for the purpose of ensuring that assessment decisions made by different assessors are within acceptable limits.

However, actual assessment decisions can also be made by external assessors. If this is undertaken by a number of assessors and if all these are subject to the same controls, the system simultaneously assesses ***and*** moderates.

It is important to note that external assessment activities need to be consistent with the partnership principles that underpin the Qualifications Framework.

### *d. To provide a mechanism for handling appealed assessments*

A system may also handle appeals against assessment decisions. There would need to be careful management to ensure that handling appeals did not get in the way of other moderation functions.

### *e. To provide feedback on the quality of unit standards*

Unit registration is for a fixed period. National standards bodies are required to review unit standards to ensure they remain fit for purpose.

Moderation systems can open a channel of communication between national standards bodies and local assessors and can provide helpful information.

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A. to e. offer a range of functions that a moderation system can have. Designers need to consider which of these are appropriate to include for the system to be acceptable to its users.

## C. Add the components of the system

## Timing: when do moderation activities take place?

Moderation activities can take place at any one or in any combination of the following:

### a. Before particular assessments

Before assessments can take place, assessors design activities and know the exact targets their candidates have to reach in order to meet the required standards.

One form of moderation can therefore occur before actual assessment. This will usually involve looking at the design of assessment activities, marking schedules and achievement targets.

Moderation would ensure that the activities and targets match nationally defined standards.

If an activity and its achievement targets are considered fit for purpose, this confidence in the input may remove or reduce the need for checking again after the assessment event has actually taken place.

### b. During particular assessments

Moderation during particular assessments would usually involve working alongside assessors.

This is sometimes suitable when the assessment does not involve the creation of a product that can be looked at, or where the product cannot be moved or lacks durability.

For example, whereas both a written assignment and a small manufactured item can be looked at, can be moved and are durable, there are difficulties when an assessment activity involves speaking, or using machinery.

Audio and video recordings of activities such as speaking and using machinery can be used. However, consideration would need to be given to cost implications and the extent to which a recording can adequately represent a performance.

### c. *After particular assessments*

Moderation after particular assessment events would look at candidates' work and may also look at assessment decisions that have been made on this work.

Candidates' work are the outputs or products of an assessment activity. This form of moderation would ensure that assessment decisions were accurate.

When problems are identified it m ;ht be considered necessary to go for heavier moderation in specific cases.

### d. *From time to time*

When moderation activities involve spot-checks, the timing (and the selection of providers and work-places) may be random.

Some selection may be based on complaints received about assessments in particular providers or work-places.

Moderation through random spot-checking may take an overview by sampling whatever assessments are available rather than being tied to prescribed events or materials.

As expertise develops and confidence in internal systems grows, moderation may shift towards this spot-check option.

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Designers need to consider when moderation is to take place and whether one or a combination of timings is most appropriate. As with the choice of functions, the key to an acceptable system is that it is fit for purpose.

## Extent: what is moderated?

Assessment is conducted by assessors within individual providers and work-places. These will be responsible for achieving internal consistency with external standards.

Wherever it occurs, moderation of assessment is usually carried out through sampling. Sampling enables effective use of the resources that are available for moderation. Sampling involves targetting selected, representative points to check the quality of the whole.

The discussion below applies directly to external moderation, but the underlying principles also apply to internal moderation.

### a. Sampling units

Providers that offer only one or two units within the field of learning might be dealt with differently from providers that offer many units.

A qualification will usually include units at several levels of the Framework. Some providers might offer the full range where others might offer units at only the lower or higher levels. It might be decided that the system should handle different situations in different ways.

If different provider situations are taken into account, there would need to be criteria for deciding which units to select.

If a particular unit is of major importance, the need for moderation may be greater. When considering units within a qualification, one option might be that assessments are moderated only in the units at the highest level that is offered by an individual provider.

### b. Further sampling decisions

Once the units requiring moderation are selected, a further set of decisions about sampling needs to be made.

Moderation activities might, for example, focus on:

- the work of a sample of candidates;
- a sample of work by a sample of candidates;
- assessments by a sample of assessors;
- assessments in a sample of elements (learning outcomes) rather than all the elements in the selected units.

The challenge will always be to select the sample that best represents the whole. There might be light, random sampling. Alternatively there might be a strategic approach such as focussing on assessment decisions made on borderline candidates.

An initial sampling may reveal the need for a variation to any sampling that follows.

Sampling decisions should not be made by those whose assessment activities or assessment decisions are being moderated.

### *c. Cycles*

The focus of moderation activities might change from year to year, or be on a cycle within a year.

A cycle would be used to vary the sampling. This might involve cycles of units, cycles of elements within units, or cycles of providers and work-places.

The cycle might be evolutionary. As confidence grows, the intensity of the moderation focus should lessen.

### *d. Acceptability of the balance between moderated and unmoderated assessments*

National standards bodies will need to have confidence in the match between moderated and unmoderated assessments.

Most moderation methods will assist professional development. There will be increasing assessment expertise within providers and work-places, and increasing ability to make accurate assessment decisions.

It is expected that standards bodies will have confidence in the professional integrity of assessors and their internal systems. Initially, however, there may be a preference for spot-checking on a case-by-case basis.

## Materials: what materials do moderation activities require?

Some of the assessment materials used within individual providers and work-places will also be used in the external moderation process.

These materials can include the following:

- assessment activities - for example, the instructions for an activity or the questions to be answered;
- marking schedules - in these assessors show how they will apply unit standards in particular assessment activities.

  Whereas unit standards do not include content, the content that will be included in achievement targets written for particular assessment activities will be very specific;
- assessed students' work.

Providers and work-places will need to know in advance when these materials need to be made available for external moderation purposes.

Where these materials are expected to have a particular shape or format, these requirements should be negotiated with providers. It is essential to avoid unreasonable demands.

There must be no intrusion into academic freedom. Moderation of assessment is focussed on ensuring that assessment is to the required standards. It is not concerned with what is taught, nor how it is taught.

Legislation protects the freedom of institutions to assess in the ways they consider best promote learning. Moderation is the public scrutiny of those ways to ensure that assessment is fair, valid and consistent. The two sides of the assessment equation must be kept in balance.

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Again, the underlying principles also apply to internal moderation.

## Personnel: who participates in moderation activities?

### a. External personnel

There will need to be careful selection of the people who are to be given professional responsibility anywhere in the moderation process. These people will need to have standing and unquestionable skill in the curriculum and in assessment practice, and a close understanding of the expectations of users.

Any person who is appointed to act as a visiting moderator or to chair a moderation panel meeting will also need to have sound communication skills.

There will need to be criteria and procedures for selecting external moderation personnel. There will need to be consideration of the advantages and disadvantages in selecting personnel to serve for short or long periods of time.

In career fields, some industry participation is likely to be required. The extent to which this is feasible will depend on a range of factors including the number and locations of providers and work-places, the level of the units and/or qualifications, and the grouping of the units into sub-fields, fields or domains. (For definitions of these refer to the glossary in appendix two.)

Industry organisations or professional associations may be appropriate networks for organising and/or operating the system.

Whatever method of moderation is used, moderators will need to have a clear understanding of the objectives they are to achieve and the procedures they are to follow. Moderators must not step outside their role.

Moderator training may be required.

### b. Personnel from providers and work-places

As well as material inputs, several moderation methods will also require the participation of personnel from the providers and work-places whose assessments are being moderated.

Where there are several assessors it is likely that only one would need to participate externally. This would be as a representative of the team or faculty group. External moderation is not an alternative to internal quality management. Internal moderation which aims to ensure that internal assessments are fair, valid and consistent is properly the responsibility of providers and work-places.

## D. SELECT A MODERATION METHOD

This section describes twelve moderation methods. Written examinations have traditionally been used but there are many other methods. In addition to the twelve there will be further possibilities.

A moderation system might use any one or combination of these methods. There may be a strategic plan for the system to evolve and this might include changing over time the methods that are to be used.

Possible applications of the methods are illustrated in case scenarios which are found in appendix one.

# 1. Exemplars and benchmark materials

Clearly and unambiguously written standards enable objective assessment to occur.

However, it is often not desirable for unit standards to be so tightly prescriptive as to offer providers and work-place assessors no flexibility. This is particularly true in general education where teachers should be able to teach and assess broad skills in a range of settings.

Exemplar materials can include sample assessment activities that illustrate applications of standards. They can be used to demonstrate by example how unit standards can be interpreted and assessed.

Assessment schedules that accompany these activities provide helpful evidence of the thinking behind the design of the activities and their marking. Achievement targets for particular activities provide the link between the unit standards and the tasks themselves.

Samples of candidates' work that have been assessed can be used as benchmarks. They can be used to illustrate in a range of settings the level of performance that is required for meeting standards.

There can sometimes be conflict between the flexibilities intended in the unit standards and the narrowing effect that exemplars can have. (This tension applies to several of the moderation methods.)

Exemplars enable national standards to be clarified. For this reason exemplars that are made available for national use need to have national endorsement.

There can be timing difficulties. It is unlikely that exemplars will be available at the time the first providers want to offer particular units. Similarly, a review of unit standards will require a revision of exemplars.

Exemplars can be helpful whether or not the unit standards are highly prescriptive. Depending on their quality, however, exemplar materials may be difficult to use consistently.

Although they do not enable any direct check on assessment decisions, they do offer significant guidance. If they are available, this should influence the decisions that are made about any checks that are to be put in place.

## 2. Recognition of 'expert' assessors

Accredited assessors and assessors in accredited providers will usually be required to participate in any external moderation arrangements that are required by a national standards body.

A national standards body may choose to recognise a higher level of assessor expertise than that required of accredited assessors. There would be a procedure established by each standards body for recognising these 'expert' assessors. Assessments conducted by expert assessors would not need to be subject to the same moderation scrutiny as that of other assessors.

Recognition would not be for life. There would need to be some monitoring of assessor performance. This would be through participation in moderation activities that would be less frequent than that required of other assessors.

A national standards body may decide to give these 'expert' assessors a special title. It may also decide that these assessors are able to moderate assessments carried out by other assessors. In this case they may be known as 'moderators'.

# 3. External written examinations

As with external assessors, this is a quality control method. It operates as a moderation mechanism because candidates from different places all sit the same examination. External written examinations combine both assessment and moderation.

Because the Qualifications Framework requires assessment to be standards-based, there are two options if external written examinations are the preferred method: element (or learning outcome) examinations and unit examinations. In these examinations there is little scope for reporting in percentage marks. Candidates either meet the standard required for gaining credit or merit, or they do not.

There is a third option that may play an additional role: the supplementary examination.

Depending on the design of the system, external examinations might not allow for re-assessment until the next time the examination is available. If this involves candidates having to wait for up to a year the issue of fairness would need to be considered.

### a. Element examination

The element examination assesses performance in units where there are elements (learning outcomes) that can be validly assessed in writing.

The wording of the elements and their performance criteria will determine whether valid assessment can be achieved by written examination. For example, practical competence cannot be assessed in writing, whereas knowledge and many thinking skills can.

Assessments of elements dealing with practical skills and attitudes will have to be moderated using methods other than a written examination.

Unless there are alternative arrangements, candidates may not be able to gain credit for units with externally examined elements until they take the examination that assesses those elements.

One examination may cover elements (learning outcomes) from a number of units. Where candidates are entered in some but not all the units assessed in the examination, there will need to be flexible examination arrangements.

### b. Unit examination

A qualification is a particular combination of units. In this option one or more of these units is specified in a way that enables it to be wholly capable of valid assessment in a written examination. Units of this type will be characterised by elements that deal with knowledge.

One possibility is that the unit or units pull together all the understandings that have developed during a sequence of units. Sitting an examination to gain credit in one or more units may be required for completing a qualification.

### c. *Supplementary examination*

A supplementary examination is additional to assessments that are carried out for giving credit on a unit by unit basis. A supplementary examination would stand outside any Framework unit or qualification to which it might relate.

The function of the examination will usually be to provide additional information on candidates. This information might be used for selection or registration purposes.

As a pre-requisite, candidates might be required to have gained credit in particular units before being eligible to take the supplementary examination.

# 4. Statistical moderation

Statistical moderation is usually carried out in association with a specific test activity. (These are sometimes called reference tests, although this is a label that can also be used for tests that do not involve statistical moderation.)

These tests can be assessment activities such as written examinations, multi-choice tests, practical tasks, and so on. They are set externally. They assess only part of a unit or part of a set of units, but the information from these is considered capable of predicting likely performance across the whole unit or across the whole set of units.

A test will be taken either by all of a provider's candidates or by a selected sample. The profile of achievement in the test is then used to verify or adjust decisions about performance across the wider range of elements and/or units. This is achieved through statistical moderation, commonly known as scaling.

These tests are used for moderating group rather than individual achievement. If, for example, 70% of the total or sample of a provider's group is considered to be competent in the particular elements assessed in the test, it might be true that 70% can be considered competent across all elements and/or units. Statistical moderation would involve adjusting assessment information so that about 70% of the candidates in the provider or workplace group gain credit.

There are major technical difficulties with this method. Dissimilarities between the elements assessed in the test and those outside the test may render the scaled results invalid. After scaling, student achievements in the elements outside the test are unlikely to bear any exact relation to actual unit standards.

The method will be particularly unfair when provider or work-place groups are small.

The information that is used for statistical moderation usually comes from tests that are taken at fixed points of time. It would be difficult to impose external decisions using statistical moderation when local assessors will have available to them the right to conduct re-assessments.

A national standards body would need to deal with all the technical challenges before embarking on this option.

A better reference test option is found in the next section which deals with common assessment tasks and reference tests.

# 5. Common assessment tasks (CATs) and reference tests

Common assessment tasks (CATs) and reference tests are two names for what is essentially the same thing. They can be any type of activity: examinations, written tests, practical tasks, assignment projects, folios of work, and so on.

CATs can be set nationally as ready-for-use activities. If a CAT includes test questions, security might require that all candidates take the CAT on the same day.

Alternatively, the parameters for the task can be set externally and local assessors then develop the detail. The parameters would include definitions that make clear the level at which the local activities are to be set.

There may be checks using one of the other moderation methods to ensure that the tasks and marking schedules that are designed locally are within the prescribed parameters and achieve parity with national standards.

All candidates or samples of candidates may undertake the task/s. When all candidates undertake a task, providers and work-places will be able to use the CAT as an integral part of their assessment programmes. Sampling does not allow for this although it can be more resource effective.

Assessment decisions may be made externally or locally. A further alternative is for initial assessments to be made locally with external random sampling.

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CATs provide local assessors with valuable information on the attainment levels of the candidates who take the task/s. The purpose, therefore, of CATs is to *signpost*. This means that at a particular point in time the CATs give a very clear indication of where the candidates' achievements are at. This is considered signposting because further learning is likely to lead to an improvement in achievements.

CATs are not usually used as the sole basis for final decisions about individual achievements. Unlike tests that are associated with statistical moderation, the results of CATs are not used to lock-in local achievement patterns. They allow for improvement.

The information that a CAT provides on a group of candidates is used as a critical reference point when final judgements are being made. Assessors and internal moderators will refer to the CAT information when making final decisions about awarding credit. Outsiders will be able to compare the CAT information against these final decisions.

A national standards body will need to decide how the reference point is to be used.

It might, for example, require providers and work-place assessors to justify where there is an apparent mismatch between what is signposted in the CAT and the final decisions. This would occur where the signposting did not signal the pattern of the final assessment decisions that are proposed.

## 6. Item banks

Item banks contain ready-for-use assessment activities. These activities can vary in style from tests to practical activities. One advantage in this approach is that local assessors are able to select items that best suit the content and style of their delivery.

The activities will usually be accompanied by a marking schedule in which the achievement targets for the particular activity are spelt out.

When items are test-based there will need to be security considerations so that the questions cannot be known before candidates take a test.

Item banks are usually centrally maintained.

The establishment of a bank will take time. Banked items are validated by trial or other judgement. Items will have to be adjusted or rejected as unit standards are reviewed. They require a very forward looking operation and require very significant time and financial investment.

If a bank is comprehensive and well maintained, it will be a major resource for assisting local assessors to keep pace with changes to unit standards and innovative assessment techniques.

All assessors in providers and work-places can have opportunities to contribute to local and national item banks.

## 7. Distance moderators

In this option, an external moderator is responsible for ensuring that local on-course or work-place assessments achieve parity with the national standards. To do this, however, the moderator does not visit providers or work-places, and nor do assessors attend external meetings with the moderator or with other assessors.

Communication will generally be by mail or electronic media.

This will usually involve the assessor in sending to the moderator a predetermined sample of assessment activities, marking schedules, and candidates' work together with their assessment decisions. Photographs and video and audio tapes may be used.

The moderator ensures that assessments are within acceptable limits and notifies assessors of the decisions that are made. Although there are no face-to-face meetings, this option should not be considered any less rigorous than others.

There may need to be networks of moderators to ensure cross-moderator consistencies. Moderators may sometimes work in teams.

## 8. External assessors

An outside assessor makes a visit for the purpose of assessing candidates' work. If the assessor has links with other assessors carrying out the same work, then moderation occurs if collectively the assessors ensure there is consistency.

This method is more easily applied in an internal moderation system.

If used as part of a local or national moderation system, logistics considerations become important, particularly if it is decided that all candidates on all sites need to be assessed. In some fields this may pose no problem. Where there are difficulties there will need to be alternative arrangements for candidates not assessed by an external assessor.

The role of the external assessor might be to examine performance in some units or in some elements within units, and for other moderation arrangements to be made for the remainder.

Similarly only some sites might be subject to moderation by an external assessor.

One consequence can be that this method will substitute for rather than support local quality management systems. This may be a disadvantage or may be a calculated advantage.

When the external assessor option is used alongside other moderation methods, the desirability of establishing a strong internal quality management system is not undermined.

Similarly, if a sample of candidates is assessed in order to validate local decisions, this confirmation will generate confidence in the local system.

## 9. External moderators with site visits

This parallels the external assessor option (option 8) but does not involve making actual assessment decisions about candidates' work.

This option is used to enable the moderator to work alongside the local assessor. Visits can be brief.

The visits can be an opportunity to explore a range of assessment activities. It can be particularly helpful for moderating assessments in units that do not involve the creation of a product that can be looked at, or where the product cannot be moved or lacks durability.

The moderator or team of moderators can undertake any number of moderation activities during a site visit. However, where there are significant travel expenses involved in this option, consideration should be given to alternative options for moderating areas that do not require site visits.

This option may involve a moderator network or may more simply involve a site visit by a key person with local, relevant status and credibility.

## 10. External moderators with panel meetings

In this option a group of assessors from providers or work-places meets with a moderator who is responsible for facilitating understanding and acceptance of national standards.

One of the key advantages in panel meetings is that representatives from providers and work-places come together to share experiences. Inconsistencies can be identified and dealt with openly. There are opportunities to challenge interpretations, although the responsibility for final decisions lies with the moderator.

Panel meetings enable individual assessors to experience the ways in which there can be consistency despite a variety of approaches to delivery. The collaboration in this option can be very important for generating confidence.

## 11. Consensus panels

This option is similar to the panels in option 10, but the role and responsibilities of the moderator are assumed by all the provider and work-place assessors who act collectively.

The assessors own the process and this provides significant motivation. Consensus does not necessarily require unanimous decisions, but for this option to be successful the basis for a majority decision has to be understood and applied by all panel members.

Although there is no appointed moderator, each meeting needs nonetheless to have a chairperson.

Experience suggests that the number of members should probably not exceed eight, and that an odd number may be preferable.

One possibility within the consensus option is for providers and work-places to work in pairs or threes.

The organisation of consensus panel meetings has to be well managed. For example, when a consensus panel is moderating assessments of completed students' work, the following procedure is one pattern that could be followed:

a. members assess samples of work individually and silently, and hand these to the chairperson;

b. the chairperson leads the discussion by asking the extreme markers to justify their decisions without interruption;

c. all members comment in turn - the discussion focuses exclusively on the work and the unit standards, is conducted solely in positive language, and involves no additional information on the candidate;

d. after all members have spoken to their assessment, open debate is allowed for a set time, maybe 5-10 minutes, after which members may change their assessments;

e. consensus is reached when a majority decision is made. Although all might not reach the same decision on an individual item, all members will agree on the basis for the decision.

There are other possibilities. Indeed, when a panel is engaged in moderating the design of assessment tasks rather than assessments of students' work, the procedure will of necessity differ considerably from the one just described.

It is important to note that it will be very difficult for a panel to achieve consensus when moderating assessment decisions if in the first place the design of the assessment activity was faulty.

## 12. Consensus panel networks

There is the possibility that different panels will reach different conclusions. This might especially occur where the unit standards lack specificity, or where panel members lack experience and are exposed to dominant personalities.

Where this is considered serious, panel networks may be needed.

There are several possibilities. A representative from each local panel could meet in panels organised on a regional or national basis. The feedback between the different levels of meetings would ensure that consistency is achieved.

Alternatively there could be overlaps between local panels. If from time to time a representative from a local panel also attends a meeting of a nearby panel, this would help to achieve consistency.

Where consistency is at risk, a standards body may on a case by case basis make alternative arrangements to ensure that a particular panel stays within the national shoal.

## STAGE 3

## REVIEW THE SYSTEM

### *Before starting*, the answer to all the following questions should be YES:

- Are the reasons for setting up the moderation system understood?
- Are the moderation arrangements suitably organised?
- Are the appropriate people directly or indirectly involved?
- Does everyone understand their roles and feel confident about carrying them out?
- Does the sampling enable an adequate check on the quality of other assessments?
- Is the timing of moderation activities acceptable to all participants?
- Is the selected method or methods the best for the given circumstances?
- Are the arrangements efficient, resource-effective and accessible?
- Does the investment of resources (finances, time and energy) provide clear benefits?
- Will there be evaluations to ensure the system is working as planned and to improve the system?

### *During the moderation process* the answer to the following question should be YES:

- Is the sampling providing confidence in the quality of other assessments?

### Moderation arrangements should be adapted if the answer to the following question is also YES:

- Would less moderation provide the same level of confidence?

## RELATED PUBLICATIONS

Assessment and moderation go hand in hand. A pre-requisite for dealing with the complexities that arise in setting up systems for the moderation of assessment is an understanding of the issues in and practice of standards-based assessment. These are introduced in a publication titled *Beyond the Norm?: An Introduction to Standards-based Assessment.*

The publication *Moderation of Assessment: an Introduction for National Standards Bodies* assists standards bodies to make decisions about external moderation for their units and qualifications. It covers the decisions that are made before the design process can begin.

The two publications described here are available from:

The Sales Officer
The New Zealand Qualifications Authority
P O Box 160
Wellington

A further publication titled *Quality Management Systems for Nationally Registered Qualifications* is being produced. This will explain the concepts that link moderation of assessment to the overall quality process. It will highlight the importance of partnership.

*A video on the moderation and assessment process will be available in February 1993.*

# APPENDIX ONE

# NATIONAL MODERATION SYSTEMS – CASE SCENARIOS

## Case Scenario I

### Levels 1 to 3

A number of national standards bodies within a grouping of fields has agreed to establish common moderation criteria for all units at levels 1 to 3. Accredited providers are required to set up local arrangements that include industry.

This requirement has been implemented in many different ways. For example, in one part of the country providers work together in small groups of three or four. These groupings are flexibly organised because not all providers offer the same units and when they do it is not always at the same time. They usually exchange assessment material by mail. There has been some interest in common assessment tasks.

Several times a year all the providers in this area meet to report on and illustrate progress. Industry representatives are invited to attend these meetings. The local group of related industries has the option to send a representative from one industry, representatives from several, or none.

### Levels 4 and above

Where accredited providers offer units at level 4 and above, they are required to form a local consensus panel that is exclusively focussed on the one field. An industry representative participates.

The panel meets twice a year. The focus in the mid year is level 4 and the meeting is for a half day; the focus at the end of year is level 5 and above and the meeting is for a full day.

One week before the local meetings the standards body announces which particular units and elements are to be the specific focus.

The local panel appoints its own chairperson who may or may not be the industry representative. The chairperson reports to a national moderator only when there is cause for concern.

## Case Scenario II

This standards body has a strategic plan for the evolution of its moderation system.

### Stage 1

Common assessment task (CAT) parameters are nationally prescribed for every unit. Accredited providers are required to develop tasks that are based on the CAT parameters. They are also required to develop marking schedules and achievement targets for each of these tasks.

Tasks and targets are mailed to a distance moderator. The tasks cannot be used until the moderator is satisfied they are valid. After assessments have been made the moderator randomly samples local assessments of students' work.

There are spot checks to ensure that final assessment allocations are acceptable.

It is planned that stage 1 operates for one year, but the decision to move to stage 2 would be made on the basis of accepted confidence in the ability of providers to do so.

### Stage 2

Exemplar and benchmark materials are produced as a result of moderation activities in stage 1. These are now key items in the moderation process and enable the system to become less centralist.

A network of local panels with one national panel is established. The panels are all led by appointed moderators. The national panel includes all local panel moderators.

National CATs remain, but fewer of these are now mandatory.

In February a representative from each accredited provider attends a full-day local panel meeting. Sample tasks from the member providers are moderated.

One moderated task from each local panel is taken by the local panel moderator to a national panel meeting. The purpose of the national meeting is to ensure all panels are interpreting standards consistently.

From time to time individual providers mail to the local moderator further tasks for moderation. Sampling of assessments continues as for stage 1.

In July the whole process is repeated.

### Stage 3

This is the same as stage 2 except the meeting cycle now occurs only once a year. Common assessment tasks are no longer used.

### Stage 4

It is expected that by stage 4 experience and strength will mean that external moderators are no longer required. Providers now attend local consensus panel meetings where they run their own procedures.

Formal half-day meetings take place twice a year, although local preference may be for more or longer meetings.

The check on the system is by audit which is conducted by the Qualifications Authority.

## Case scenario III

For its National Diploma, this standards body requires every accredited provider to have a relationship with a local representative from the industry. These act as external moderators. The national industry organisation endorses local appointments and thereby ensures the moderators are representative of the industry.

The moderator is required to visit the provider or work-place at least once a year. The function, timing and focus of the visit is a local decision.

When candidates have completed the required units and gained the industry's qualification, candidates are required to sit a supplementary examination if they wish to be registered as practising members in the industry.

The industry has appointed an independent researcher to compare the achievements of candidates in the National Diploma units and the supplementary examination. The intention is that if it is found that the examination provides superfluous or aberrant information, then it may be replaced by a common assessment task that is incorporated into one of the National Diploma units.

## Case Scenario IV

There are two approaches to moderation, one for practical skills and one for theory. The intention is that both of these will evolve.

### Practical skills

This industry group has been very supportive of the development of a qualification in assessment practice. The industry has contracted a provider to deliver on-course and distance training that relates the unit standards on assessment practice to the needs of this particular industry.

The industry registers people who gain this qualification as expert assessors. The industry does not require providers and work-places staffed with registered assessors to have assessments of practical skills carried out by external assessors.

However, providers and work-places without registered assessors are required to purchase the services of a registered expert assessor.

### Theory

This industry has a supplementary examination which candidates have been required to pass to gain membership of the profession. This is to continue until there are significant numbers of registered assessors.

At that point it will be replaced by a two hour unit examination. This examination will assess candidates in one unit that includes theory and knowledge but no practical skills. This unit is required for a candidate to complete the industry's qualification.

The industry has decided to keep an examination as a cross-check in a qualification that is otherwise wholly assessed by local assessors.

## Case scenario V

This standards body is in a general education field.

For units at level 1 the standards body has no external moderation requirements.

For levels 2 and 3 moderation criteria are set. These require providers to allow visits from a local visiting moderator who will usually be from another provider and be a representative of the national professional association.

The National Certificate at level 4 is usually delivered on-course and candidates tend to take combinations of units as a full year programme.

The moderation system for level 4 units is based on local consensus panels, each with either 5 or 7 members. The local panels are part of a network of regional and national panels. The system works on an annual cycle.

### Local panels: day 1

The first local meeting is early in the year. It is for reviewing interpretation of unit standards. This exercise uses exemplars from previous years and assesses samples of work without panel members knowing in advance the given assessment decisions. The day also includes collaborative development of achievement targets for new, local assessment activities.

The objective of this day is to ensure consistency in developing local achievement targets based on unit standards.

### Local panels: day 2

This is held after assessors have had experience in using their activities. The objective is to ensure consistency in applying local achievement targets, and to make changes to targets and activity design where this is found to be necessary.

### Regional and national panels

Between days 2 and 3 local representatives attend regional meetings to ensure inter-panel consistency. This is repeated at a national level.

### Local panels: day 3

The final day is held at a point when final assessment decisions are in the process of being made. The aim of the day is to assist assessors to make accurate final decisions.

The local providers need to be willing to co-operate so that the timing of events is to the advantage of all members.

## Case Scenario VI

This standards body has a three tier moderation system:

### Levels 1 and 2

For units at levels 1 and 2 there are moderation criteria that require external moderation arrangements.

### Levels 3 and 4

For levels 3 and 4 there are criteria that require external moderation arrangements that include user participation.

### Level 5 and above

For level 5 and above there is a national system of external moderators who make regular site visits.

The standards body requires accredited providers to participate in these external moderation arrangements only for units at the highest level of the framework that they offer.

This means that for a provider that offers units ranging from levels 1 to 3, external moderation would apply only to assessments in the level 3 units. Another provider that offers units ranging from levels 1 to 7 would participate in external moderation arrangements only for units at level 7.

## Case Scenario VII

This national standards body has established moderation criteria for units at all levels.

The standards body has tagged a requirement that accredited providers set up a panel arrangement with one other provider. Assessors cross-check each other's assessments. Exchanges can occur without face-to-face meetings taking place.

Every year providers are required to select new partners. When there is cause for concern, the Authority can choose to direct the re-establishment of particular partnerships.

# APPENDIX TWO

## GLOSSARY

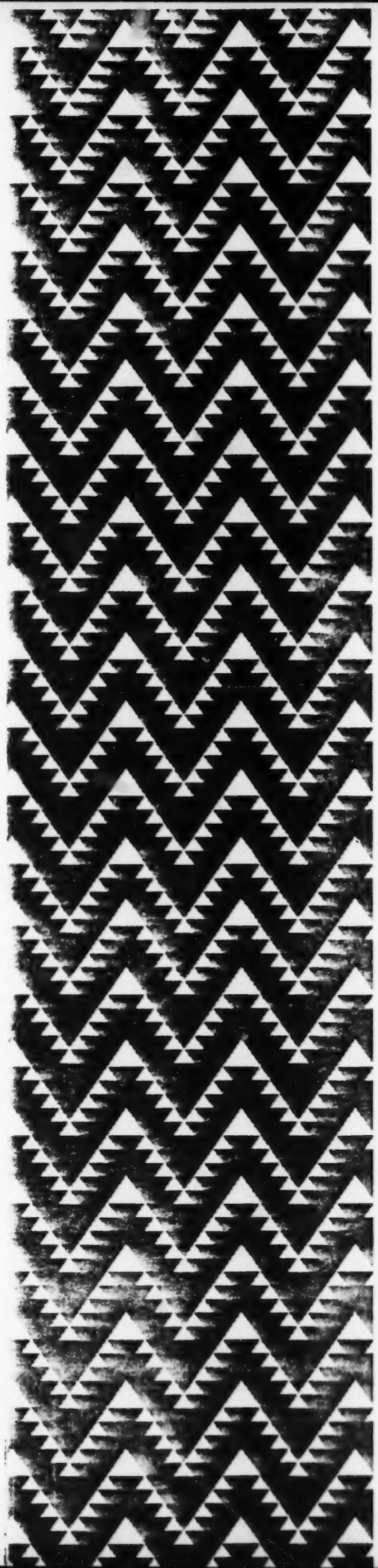
- **Accreditation** (of providers) - a process for ensuring that providers have the capacity, including management of quality, to deliver unit standards.
- **Assessment** - a process of collecting and interpreting evidence of competence or achievement.
  - **Moderation of assessment** - *a process for ensuring the consistency of assessment with the required standard.*
  - **Performance criteria** - *statements of competence or achievement against which the attainment of outcomes is measured.*
  - **Standards-based assessment** - *assessment which is measured against unit standards.*
- **Certification** - documentary evidence that a qualification has been awarded.
- **Credit** (as applied to a unit standard) - a value assigned to a unit standard which reflects the relative time and effort required to complete its outcomes.
- **Credit Transfer** - a process of transferring credits between courses which lead to a nationally registered qualification.
- **Database of Student Records** - a database which contains details of units and qualifications completed by individuals.
- **Delivery** - teaching and learning approaches, context and content, resources, and range and number of assessments.
- **Domain** - a term describing a specific area of education or training at unit level, defined in the *NZQA Standard Classification for Units and Qualifications.*
- **Element/Outcome** - the competencies/achievements which must be demonstrated for successful completion of a unit.
- **Field** - a term describing a general area of education or training, corresponding to an *ISCED* field and defined in the *NZQA Standard Classification for Units and Qualifications* (see also **Sub-field** and **Domain**).
  - **Sub-field** - *a term describing a specific area of education or training at qualification level, corresponding to an ISCED sub-field and defined in the NZQA Standard Classification for Units and Qualifications.*
  - **Group Accreditation** - *accreditation of a provider to offer a number of units in a specified field, sub-field or domain up to a specified level.*

- **General accreditation** - accreditation of a provider to offer all National Certificate and National Diploma units up to level 7 of the framework.
- **Group accreditation** - accreditation of a provider to offer any number of units in a specified field, sub-field or domain up to a specified level.
- **Levels** - the eight levels of the framework are defined in terms of progressive stages of competence/achievement and complexity in units assigned to them.
- **Moderation of Assessment** - a process for ensuring the consistency of assessment with the required standard.
- **National Qualifications Framework** - collectively, all nationally registered qualifications and the nationally registered unit standards from which they are derived. Implicit is a defined and logical relationship between them.
- **National Standards Bodies** - represent all major user groups connected with a field, sub-field or domain (for example, health sciences) and have responsibility for the development, evaluation and endorsement of all units and qualifications in that category.
- **NZQA Standard Classification for Units and Qualifications** - a document which defines fields, sub-fields and domains, used for naming qualifications and unit standards, and for assistance in defining NSB and ITO fields, sub-fields or domains.
- **Outcome/Element** - the competencies/achievements which must be demonstrated for successful completion of a unit.
- **Performance Criteria** - statements against which the attainment of elements/outcomes is measured.
- **Provider** - an individual or organisation providing education or training.
- **Qualification** - a combination of unit standards which, when certificated, completes the *educational* prerequisite agreed by national standards bodies to be appropriate for entry to an occupation, or to a course at a higher level.
- **Quality Audit** - a process for ensuring the effective performance of a provider's overall systems for the management of quality; a function of the Authority.
- **Quality Management** - a process and structure implemented by a provider for ensuring that standards required by the Authority and national standards bodies are met; a prerequisite for accreditation.

- **Accreditation** (of providers) - *a process for ensuring that providers have the capacity, including management of quality, to deliver unit standards.*
- **Group accreditation** - *accreditation of a provider to offer any number of units in a specified field, sub-field or domain up to a specified level.*
- **General accreditation** - *accreditation of a provider to offer all National Certificate and National Diploma units up to level 7 of the framework.*
- **Unit Accreditation** - *accreditation of a provider to offer a specific unit or units.*
- **Moderation of Assessment** - *a process for ensuring the consistency of assessment with the required standard.*
- **Registration of Private Training establishments** - *a process for ensuring that basic educational and consumer safeguards are in place.*
- **Registration of Units and Qualifications** - *a process for ensuring that units and qualifications have been evaluated and endorsed by national standards bodies as representing an exclusive national standard, and so registered with the Authority.*

- **Recognition of Prior Learning** - a process of awarding credits for outcomes which have not been certificated in terms of the National Qualifications Framework and may have been completed outside formal education and training.
  - **Credit Transfer** - *a process of transferring credits between courses which lead to a nationally registered qualification.*
- **Registration of Private Training Establishments** - a process for ensuring that basic educational and consumer safeguards are in place.
- **Registration of Units and Qualifications** - a process for ensuring that units and qualifications have been evaluated and endorsed by national standards bodies as representing an exclusive national standard, and so registered with the Authority.
- **Standards** - nationally registered statements of education and training outcomes and their associated performance criteria. See also Unit.
- **Standards-based Assessment** - assessment which is measured against unit standards.

- **Unit** - a unit has two parts:
  - *nationally evaluated and endorsed unit standards registered on the Authority's unit standard database*
  - *delivery details developed by a provider for teaching purposes.*
  - **Delivery** - *teaching and learning approaches, context and content, resources, and range and number of assessments.*
  - **Element/Outcome** - *the competencies/achievements which must be demonstrated for successful completion of a unit.*
  - **Unit Standards** - *nationally registered element/outcome statements and performance criteria, and administrative information.*
- **Unit Accreditation** - accreditation of a provider to offer a specific unit or units.
- **Unit Standards** - nationally registered element/outcome statements and performance criteria, and administrative information.
- **User Group** - all those who derive direct or indirect benefit from a qualification and its component units; generally includes students, qualified individuals, professional associations and employers who may be represented, along with providers, in national standards body.



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